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Notice of Allowability	Application No.	Applicant(s)	
	09/991,295	ENGBERSEN ET AL.	
	Examiner	Art Unit	
	Toan D. Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/16/05.
2. ☒ The allowed claim(s) is/are 2-17 are renumbered 1-16, respectively.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 5/5/05.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>8/16/05</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Examiner Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Anne Vachon Dougherty on August 16, 2005.

2. The application has been amended as follows:

Abstract:

In line 3, the phrase "such interface modules" has been replaced by --- interface modules ---.

In line 6, the phrase "of said other interface modules" has been deleted.

In line 9, the phrase "data for forwarding across the switching node" has been deleted.

In line 10, the phrase "for transmission over the link" has been deleted.

In line 13, the phrase "port of the module and between the internal ports and the link" has been replaced by --- ports and to the link ---.

In line 14, the word "further" has been deleted.

In line 15, the phrase "of the module" has been deleted.

In line 16, the phrase "governing routing of data across the intra-node network of interconnected interface modules of the switching node" has been deleted.

In line 19, the phrase "such interface modules" has been replaced by --- interface modules ---.

In line 20, the word "also" has been deleted.

IN THE CLAIMS:

In claim 9 line 1, the word "A" has been replaced by --- The ---.

In claim 9 line 5, the limitation " the switching modules" has been replaced --- the switching module ---.

In claim 10 line 1, the word "A" has been replaced by --- The ---.

In claim 11 line 22, the limitation " of each interface module" has been replaced --- of said each interface module ---.

In claim 12 line 2, the limitation "comprising at least the switching node according to claim 8," has been replaced by --- comprising:

at least one switching node comprising a plurality of interface modules for connection data communications links to the switching node wherein each interface module comprises at least one external port for connection to the data communication link, a plurality of internal ports, a link interface which is connected to said at least one external port, for processing inbound data for forwarding across the switching node and outbound data for transmission over said data communications link, a switch circuit, which is connected between the link interface and the internal ports of the interface module, for transmission of data between the internal ports of the interface module and between the internal ports and the link interface, and a controller for controlling routing of data via the internal ports of the interface module, wherein the link interface comprises an external routing component for adding external routing information to data to be forward across the switching node in dependence on a destination address indicated by the data to be forwarded, said external routing information indicating an external port of one of said other interface modules of the switching node to which the data is to be forwarded; at least some of the internal ports of said each interface

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module are connected to respective internal ports of one at least one other said each interface module whereby the interface modules are connected in an intra-node network; and wherein the controller of each interface module is arranged to control said routing of data in accordance with an intra-node routing protocol governing routing of data across said intra-node network; ---.

In claim 17 line 28, the limitation " of each interface module" has been replaced --- of said each interface module ---.

The above examiner's amendment was made to clarify the claims.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

Regarding claims 4, 7 and 8, the prior art fails to teach a combination of the steps of: wherein the link interface comprises an external routing component for adding external routing information to data to be forwarded across the switching node in dependence on a destination address indicated by the data to be forwarded, said external routing information indicating an external port of one of said other interface modules of the switching node to which the data is to be forwarded, in the specific combination as recited in the claims.

Regarding claim 5, the prior art fails to teach a combination of the steps of: wherein the controller comprises an internal routing manager for maintaining topology information indicative of the topology of the intra-node network, and an internal routing component for selecting, in dependence on said topology information, the internal port of the interface module for forwarding of data across the intra-node network in accordance with the intra-node routing protocol, in the specific combination as recited in the claim.

Regarding claim 11, the prior art fails to teach a combination of the steps of:

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wherein the switching circuit of said each interface module comprises an electrical switch, and the switching circuit of the switching module comprises an optical switch, in the specific combination as recited in the claim.

Regarding claims 16 and 17, the prior art fails to teach a combination of the steps of:

wherein the controller comprises an internal routing manager for maintaining topology information indicative of the topology of the intra-node network, and an internal routing component for selecting, in dependence on said topology information, the internal port of the interface module for forwarding of data across the intra-node network, in the specific combination as recited in the claim\$.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

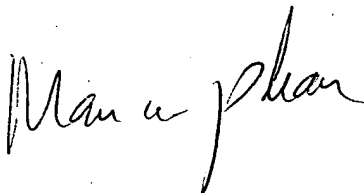
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MAN U. PHAN
PRIMARY EXAMINER